



Application No. 10/561,612
Attorney Docket No. 053317

Amendment under 37 C.F.R. §1.111
Amendment filed: November 21, 2006

REMARKS

Claims 1, 5 and 6 are pending in the present application. Claims 1, 5 and 6 are rejected.
Claims 1 and 6 are herein amended. No new matter has been entered.

Specification

The Examiner asserts that the grammar of the first sentence of the abstract should be corrected because it is not a full sentence. Further, the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words.

Applicants submit herewith the following changes to recommend the following amendment to the Abstract:

~~To provide an orthopedic apparatus with which a surgeon can perform a trimming operation safely without damaging blood vessels and nerves in the vicinity of an angle of jaw and without the need to make a large incision and a surgeon can perform a trimming operation by one hand with a smaller number of persons required for the operation.~~

An orthopedic apparatus having: a shank; a fan-shaped member provided at the front end of the shank; and a coupling provided at the rear end of the shank and connectable to a driving source is disclosed. The fan-shaped member is inclined with respect to an extension of the shank; file ridges are formed on a surface

of the fan-shaped member (reverse side) which is oriented toward the rear end of the shank; and the shank is constructed so as to oscillate between a clockwise direction and a counterclockwise direction continuously.

Claim Rejections - 35 U.S.C. §112

Claim 1 recites the limitations “the front end of the shank” in line 5; “the rear end of the shank” in line 6; “the fan-shaped member (12)’s reverse surface” in line 12; and “the rear end of the shank” in line 12. Claim 6 recites the limitation “the rotation angle in which the shank rotates” in line 2.

The Examiner asserts that there is insufficient antecedent basis for the above limitations in the claims. Applicants address these rejected elements in the amended claims submitted herewith.

Claim 1 recites the phrase “...the shank is constructed so as to rotate into a clockwise direction and a counterclockwise direction continuously.” The Examiner has interpreted this to mean that the shank oscillates, and has used this interpretation in the rejections below.

Applicants note that the word “oscillate” generally means a swinging motion like that of a pendulum. The claimed invention clearly operates in such a swinging motion, while the motion described as “oscillation” in the cited reference is a mere linear reciprocating motion. However,

the word “oscillate” also has the meaning of “to move or travel back and forth between two points”¹. Therefore, Applicants herein clarify the claims to so recite.

In the present amendments, Applicants clarify that the present invention is an orthopedic apparatus comprising:

a straight shank (11) having

a longitudinal axis line L,

a front end, and

a rear end opposite the front end;

a fan-shaped member (12) which is provided at the front end of the shank (11),
said fan shaped member having a surface and a reverse surface; and

a coupling (13) which is provided at the rear end of the shank (11) and is to be
connected to a driving source (30),

wherein:

the fan-shaped member (12) is inclined with respect to ~~an axis~~ the longitudinal
axis line (L) by an inclination angle (θ),

file ridges (14) are formed on the fan-shaped member (12)’s reverse surface,
oriented toward the rear end of the shank (11), and

the shank (11) is ~~constructed so as to rotate into a clockwise direction and a~~
~~counterclockwise direction continuously~~ adapted to be driven in an oscillatory swinging
motion through a rotation angle.

¹ Merriam-Webster’s Medical Dictionary, © 2002 Merriam-Webster, Inc.

It is the phrase “adapted to be driven by the driving source in an oscillatory swinging motion through a rotation angle” that clarifies the invention as involving a swinging motion, which motion can not be confused with a mere reciprocating motion as taught by the cited reference noted below.

Claim Rejections - 35 U.S.C. §102

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by Vlacancich (US Pat. 5,529,494).

The Examiner asserts that Vlacancich discloses an orthopedic apparatus (Fig. 5) comprising a straight shank (Fig. 4, ref. 38); a fan shaped member (Fig. 2, ref. 74); a coupling (Fig. 4, ref. 64) connected to a driving source (Fig. 4, ref. 60); the fan shaped member is inclined 90 degrees with respect to an axis line; there are file ridges (Fig. 2 below) on the fan shaped member’s reverse surface; and the shank is constructed to rotate into clockwise direction and a counterclockwise direction continuously (column 4, lines 45-46).

Applicants respectfully disagree with this rejection because not all of the claimed limitations are taught by the cited reference.

Applicants note that the tool head of the cited reference is neither fan-shaped nor includes file ridges on the surface of the tool. With respect to the phrase “fan-shaped”, Applicants note that reference 74 is not even part of the invention of the cited reference. Rather, item 74 is an implant to be placed into the bone below the gum of a patient, which implant is placed through use of the invention of the cited reference.

Therefore, it is clear that the cited reference fails to disclose all of the claimed limitations.

Claim Rejections - 35 U.S.C. §103

Claims 5 and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Vlacancich (US Pat. 5,529,494).

With regard to claim 5, the Examiner asserts that it would have been obvious to construct the orthopedic apparatus of Vlacancich with an angle of inclination of the fan-shaped member with respect to the axis line in the range from 10 to 120 degrees, since changing the angle of inclination is no more than discovering the optimum or workable ranges, which involves only routine skill in the art.

With regard to claim 6, the Examiner asserts that it would have been obvious to construct the orthopedic apparatus of Vlacancich with the rotation angle in which the shank rotates into a clockwise direction and a counterclockwise direction continuously being in the range from 5 to 30 degrees, since changing the rotation angle is no more than discovering the optimum or workable ranges, which involves only routine skill in the art.

Applicants respectfully disagree with the rejection because the claimed limitations are not taught or suggested by the cited reference. However, Applicants first clarify the invention.

As noted above, the cited reference fails to disclose a fan-shaped member, much less a fan-shaped member with a file ridge surface. The part that the Examiner refers to as a fan-shaped member is in fact an implant that is installed by use of the tool of the cited reference.

The Examiner asserts that the cited reference teaches a tool that oscillates through a rotation angle. However, the tool of the cited reference has two alternative functions.

The first function is a device for installing an implant such as shown in reference label 74. In such a function, the head of the tool of the cited reference rotates in one direction or another, but is not taught to oscillate in a to and fro motion.

The second function of the tool of the cited reference involves an oscillating. However, the oscillating is describing an alternative head of the tool that is shaped as a saw. The motion is a reciprocating motion of the head and saw blade, but the motion is linear, and does not involve any rotation angle. Thus, even the limitations of the base claim 1 are not taught or suggested by the cited reference.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.


If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,
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